jederseits in seitlichen Zahn auslaufend; Antenne schwarzbraun, unten fast gelb, Geisselglied 2 etwas kürzer als 3 und schräg abgesetzt; Mesonotum sparsam aber tief punktirt, Scheibe punktlos, dafür sehr fein gerunzelt; Area sehr fein gerunzelt, ganz matt. Abdomen azurblau, sparsam aber lang behaart, mit stark abgesetzten Segmenten, sparsam aber tief punktirt, Endränder braun; Segment 6 und 7 sehr verlängert und schwarzbraun behaart. Ventralsegmente weiss gefranst, 6 stark verlängert, gelbbraun gerandet und ebenso behaart. Beine schwarz, Femur und Tibie verdickt, Tibien I und II aussen mit vorspringenden Endzähnchen, Tibien III innen mit grossem, stumpfem Zahn vor dem Ende; Metatarsus schmaler als die Tibie, Calcar rotgelb. Flügel hyalin mit getrübtem Endrand, Adern und Tegulae pechbraun. — L. 10—10¹/₂ mm, Br. 3¹/₄ mm.

d' von Salta, 1200 mtr.; Steinbach leg. -- N.-Argentina.

Descriptions of New Species of Neotropical Vespidae. (Hym.)

By P. Cameron.

1. Chartergus amazonicus sp. nov. 9.

Black, the sides of the 2nd abdominal segment narrowly above, broadly below and the following all round (more broadly below than above) pale orange yellow; wings almost hyaline, the nervures and stigma black. — Length to end of 2nd abdominal segment 5 mm.

Cararamer-Amazonia (Prof. J. W. H. Trail F. R. S.

First abdominal segment small, cup-shaped, much narrower than and clearly separated from the second, which is distinctly broader than long and roundly narrowed at the apex. Scutellum projecting over the median segment, its apex broadly narrowed in the middle, the sides rounded. Post-scutellum forming, with the metanotum, an oblique steep slope; the sides of the metanotum broadly projecting above. Ocelli forming an equilateral triangle; the posterior separated from each other by a less distance than they are from the eyes. Temples about

two thirds of the length of the top of the eyes; occiput rounded inwardly, not transverse, weakly margined in the middle, more distinctly (but still not strongly) on the sides. Clypeus very smooth, shining and bare. Front and vertex punctured, but non closely or strongly; the pro- and mesothorax are as closely, but more strongly punctured; the punctuation on the pronotum is stronger and closer than it is on the mesonotum; its base is not quite transverse, the middle and sides slightly projecting; the sides form broad triangles. The scutellum is more strongly, rugosely punctured than the pronotum. Median segment smooth in the middle, the sides somewhat strongly, but not closely punctured; it has a steep slope and no keel down the middle. Abdomen closely, but not strongly punctured. Eyes pilose. Malar space very small. Mandibles smooth and shining. Second abscissa of radius one fourth of the length of the 3rd. Abdomen wider than the thorax. Third antennal joint twice the length of the 4th.

This species is not unlike *C. mexicanus Cam*. in size and colouration; the latter may be known by the apex of the scutellum being transverse and more obliquely sloped and not projecting over the metanotum, by the sides of the median segment not projecting above; and by the abdomen being much more strongly and distinctly punctured. It may be referred to the group of *nitidus**. There is not much appearance of pilosity; but possibly the pubescence may be dense in fresh examples.

2. Chartergus flavofasciatus sp. nov. ♀ or ķ.

Black, densely covered with fuscous pubescence, denser and longer on the median segment and on the abdomen; on the face and clypeus the pubescence is short and silvery; the scape and basal 3 or 4 joints of the flagellum, the head, except a large, oval, broader than long, mark extending from shortly behind the ocelli to half way down the front, the thorax, except for a large mark, trilobate at the base, on the mesonotum, and the basal two-thirds of the abdominal petiole, pale fulvous yellow, the legs being also of this colour. Wings fuscous; the anterior have a yellowish cloud, extending from the base of the apical third of the costa to the base of the stigma; the hind wings are almost hyaline; the stigma

^{*} Cf. Ducke, Boletim do Museu Goeldi, IV, p. 325.

and the nervures, except on the hyaline or yellow parts, are black. — Length to end of 1st abdominal segment 6 mm.

Rio Jutahi. Amazonia, January (Prof. J. W. H. Trail F. R. S.). Occiput sharply margined; the vertex slightly, broadly roundly incised. Eyes densely covered with blackish pubescence. Malar space as long as the pedicle of the antennae. Ocelli in a triangle; the hinder are separated from each other by about one fifth the distance they are from the eyes — by about the length of the 2nd joint of the flagellum of antennae. Mandibles dark brown. There is a longitudinal furrow between the antennae. The mesonotum is black, except narrowly on the sides, the yellow border being broader in front and projecting backwards on the innerside, the black central part being longer than broad and of almost equal width throughout. Apex of clypeus broadly rounded. Second joint of flagellum nearly as long as the following two united. Metanotum broadly, but not deeply depressed in the middle; it bears large, deep, clearly separated punctures; the sides are broadly rounded. The 1st abdominal segment large; it becomes gradually wider towards the apex, where it is not quite so wide as the segment is long. The abdomen is slightly longer than the head and thorax united. The 2nd abscissa of the radius is half the length of the 3rd.

Belongs to *Ducke*'s groupe of *fraternus* (l. c. p. 323); the abdominal petiole is longer than usual, cupuliform, clearly separated from the 2nd segment; the large basal abdominal segment and longish abdomen gives it the appearance of a *Polybia*. The post-petiole is larger than usual, broad, roundly convex, roundly narrowed behind and with an oblique slope there. The median segment is larger than usual; its apical slope is not so steep as it is with most species. The abdomen, too, is longer compared with the length of the head and thorax.

3. Polybia panamaensis sp. nov. Q.

Black; the flagellum of antennae rufo-testaceous, darker at the base above, the anterior tibiae and tarsi fuscous; wings hyaline, tinged with fuscous, the stigma, costa and nervures rufo-testaceous. — Length (total) 17 mm.

Panama (G. F. Mathew).

Head wider than the thorax; the temples not quite so long as the top of the eyes; broadly rounded. Malar

space almost twice the length of the antennal pedicle. Ocelli ::; the hinder separated from each other by about one fourth the distance they are from the eyes. Clypeus shining, sparsely but distinctly punctured; its apex is gradually narrowed to a sharp point. Top of apical slope of pronotum raised, the sides distinctly projecting, rounded at the base, obliquely narrowed towards the apex. Scutellum large, roundly convex. Post-scutellum with an oblique slope; its apex broad, transverse; its base in the middle slightly incised. Metanotum longish; it has a straight, oblique slope; its centre has a wide furrow, deep in the middle; the sides with an oblique slope; the furrow does not extend to the base. A curved, deep, distinct furrow runs down from the tubercles half way down the mesopleurae towards their apex; from its centre, where it commences to bend, another much less distinct one runs towards the base. Abdominal petiole slightly longer than the metanotum; the basal third is clearly narrowed, becoming obliquely widened towards the tubercles, which are prominent; the apical part is not much widened towards the apex; the 2nd segment is somewhat shorter than the 1st; it is longer than its width at the apex; the base is obliquely narrowed. The entire abdomen is distinctly longer than the head and thorax united; the dilated part is 3 times longer than broad. The 2nd cubital cellule is much narrowed in front, being there one fourth of the length of the 3rd; the recurrent nervures are received in the middle.

Belongs to the group of *P. angulicollis Spin.*; the apex of the pronotum is as in Saussure's figure of *P. constructor Sauss.*, but not quite so transverse; the petiolar tubercles are quite prominent, not "very small" as they are, according to *Saussure* (Vespides, 1, 185), in *angulicollis* and *angulata*. In these species the wings are ferruginous; in the present species it is only the nervures which are so coloured; the apex of its clypeus is fringed with golden hair. It is quite possible that a good series of specimens would show that *angulicollis*, *angulata* and *centralis* are only forms of one species. The two former are from Brazil. In my species the form

of the abdomen is as in Synaeca.

4. Polybia Traili sp. nov. φ.

Black, with the following markings pale yellow: the sides of the clypeus broadly from near the top, its apex more narrowly (the black central mark is dilated above,

becoming gradually narrowed towards the apex and with irregular edges), the mandibles except the teeth and lower edge; the inner orbits broadly, the line curving round and almost uniting behind the eyes, a broad line on the outer orbits, the line not touching the top of the eyes, a broad line on the centre of the base of the pronotum, a narrower interrupted one on the apex, 2 lines on the centre of the apex, slightly widened at the base, a slightly narrower line along the tegulae, a large mark on the sides of the scutellum, rounded on the outer side, oblique on the inner and widened towards the apex, a squarish oblique mark at their base, the post-scutellum, except for a conical mark in the centre of the apical half, 2 lines on the metanotum bordering the central furrow, the base of the propleurae from near the top, the line on the top obliquely dilated backwards to the middle, this part being narrower than the rest, a broad, curved irregular band on the apex of the mesopleurae, a large, irregular, somewhat triangular spot below the hind wings, a broad oblique mark in the centre of the metapleurae, the line rounded and straight above, more irregular below, 2 large marks on the middle of the mesosternum, a short curved line, dilated on the basal half, on the sides of the post-petiole, curved lines on the sides of the 2nd to 5th segments, a large, broad mark, longer than broad, its 4 angles dilated outwardly, on the basal two-thirds of the 2nd ventral segment, a broad transverse line on its apex, 2 broad transverse marks on the 3rd, the sides at the apex dilated outwardly, 2 united marks on the 4th and 5th, also dilated laterally at the apex, and 2 lines along the sides of the 6th, pale yellow. Legs black, the fore coxae, the 4 posterior on the outer side and in the centre in front and behind and a broad line on the underside of the femora, pale yellow. Wings hyaline, the apex of the costal cellule and the greater part of the radial, smoky; the costa stigma and nervures black. — Length to end of 2nd segment 12 mm.

Rio Purus, Amazons (Prof. J. W. H. Trail. F. R. S.)

Abdominal petiole long, its apical half abruptedly dilated; it is nearly as long as the 2nd segment and the half of the 3rd united; the 2nd segment is bell-shaped, widened and clearly separated at the base from the 1st; its length is shorter than the width at the apex. There is a short, but distinct malar space. Ocelli ::; the hinder are separated from the eyes by more than double the distance they are from each other.

Belongs to Saussure's Division Jota and has the general colouration of *P. liliacea*; it has a longer abdominal petiole than that species and the post-petiole is more abruptly and clearly separated; the 2 lines on the mesonotum are not united at the apex, the head is largely marked with yellow, and the abdominal segments are not lined with yellow above.

5. Polybia acutiscutis sp. nov. ♀ or ķ.

Yellow, with the following parts black: the occiput, outer half of the eye orbits, a large transverse oval mark on the vertex, united to the black on the occiput by a short, narrow line, widest in front, a broad line above each antennae, narrowed above and united to the mark on the vertex, a large mark between and above the antennae, it also extending shortly below them, where it is rounded, above it is gradually narrowed to a point, two irregular curved lines in the centre of the upper part of the clypeus, 3 broad lines on the mesonotum, the central dilated at the base on both sides, the lateral dilated on the outerside at the base, the scutellum, except for a transverse triangular mark (the narrowed end on the innerside) on eitherside at the base, the sides and apex of the post-scutellum, the parts bordering both, a line down the centre of the median segment, the pronotum except at the apex, the base of propleurae, a large somewhat triangular mark — dilated at the base above, the narrowed part below on the apex; the mesopleurae, except for an oblique broad line, extending from the tegulae to the middle and the lower two-thirds of the apex, the mesosternum, a line, dilated in the middle above, on the upper two-thirds of the metapleurae extending on to the metanotum, the lower edge broadly, a large mark on the basal three fourths of the 1st abdominal segment, its base with two somewhat oval marks and its apex indented by a square yellow mark in the middle, a narrow irregular line on the base of the 2nd segment, a broad band on its middle, the apex of the mark regular, transverse, the base irregular, incised in the middle and at the sides; the 3rd to 5th broadly at base, the 6th entirely, the ventral two segments almost entirely and the others irregularly and narrowly. Legs black, the anterior coxae, apex of femora, tibiae and tarsi, a line on the outerside of the middle coxae and on the lower side of the middle tibiae, yellow. Wings hyaline, the stigma and nervures black, the centre of the stigma fuscous. Antennae black above, the rest rufo-fulvous. — Length to end of 2nd abdominal segment 5 mm.

British Honduras.

Malar space obsolete. Ocelli in an equilateral triangle, the hinder separated from the eyes by a distinctly greater distance than they are from each other. Front with a narrow, but distinct furrow down the centre. First joint of flagellum nearly twice the length of the 4th; the latter is not much longer than the pedicle. Mandibles yellow, the teeth rufous. Angles of pronotum rounded. On the upper half of the mesopleurae, commencing at the tegulae, is an oblique, roundly curved, furrow; it is distinct, moderately deep and obscurely crenulated. First abdominal segment large, distinctly narrowed at the base, becoming gradually roundly dilated from the narrowed part to the apex; it is about three fourths of the length of the 2nd segment, which is roundly narrowed at the base, and in length not quite so long as the width at the apex. Second cubital cellule not much narrowed in front; it receives the 1st recurrent nervure in the middle; the 3rd abscissa of the radius is slightly longer than the basal two united. Post-scutellum large, gradually roundly narrowed to a point; the metanotum at its apex is raised, shining and appears to form almost part of the post-scutellum. Mesonotum longer than wide, rounded at the base. fully wider than the thorax. Apex of abdominal petiole clearly separated from the base of 2nd segment.

Comes close to *P. sedula Sauss.* from Pará and Bahia. It forms with *sedula* and *holoxantha Ducke* a group characterized by the post-petiole being prolonged behind into a sharp point, not broad and transverse as in most of the species. Cf. Ducke, Boletim do Museu Goeldi, V, 341.

Einige synonymische Bemerkungen über Blattwespen.

Von Fr. W. Konow, p. - Teschendorf. (Fortsetzung aus H. 5 p. 328.)

19. A. Costa beschreibt in Rendic. Acc. Sc. Fis. Napoli p. 172 (1889) aus Griechenland eine Hyl. Schmiedeknechti, die sich nicht im geringsten von A. Frivaldskyl Tischb. unterscheidet, also auch keine andere Spezies